REPORT OF THE COMMITTEE OF COLLECTIVE INVESTIGATION OF THE ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND FOR THE YEAR 1889–90. Reported by ARTHUR THOMSON, M.A., M.B., *Lecturer on Anatomy, University of Oxford.*

IN presenting this, the First Annual Report, it may be well to call attention to the steps that have been already taken to further Collective Investigation among the anatomical teachers of this country.

At a meeting of the Anatomical Society, held on March 6, 1889, it was agreed to appoint a Committee to consider a scheme of Collective Investigation.

In the month of September of the same year, this Committee issued the following questions:—

1. Abnormalities in the arterial supply of the kidney. The renal arteries to be noted in every subject dissected, and all deviations from the normal arrangement in number and position to be tabulated.
2. The relation of the internal maxillary artery to the external pterygoid muscle, whether superficial to, or deeper than the muscle, its position to be noted in each body.
3. The condition of the tuberculum laterale of the posterior process of the astragalus, whether detached as an os trigonum, or continuously ossified to the astragalus, its relations to the posterior astragalo-peroneal ligament may also be noticed.
4. The order of union of the three great trunks which form the vena portæ, and the levels of their junctions. The recorder is asked to endeavour, as far as possible, to observe and report the existence of valves in any of the tributaries of this vein.

Copies of the above were forwarded to the teachers in the following schools:—

*St Bartholomew's Hospital, London.
Charing Cross Hospital, London.
St George's Hospital, London.
Guy's Hospital, London.
King's College, London.
London Hospital, London.
St Mary's Hospital, London.
*Middlesex Hospital, London.
*St Thomas' Hospital, London.
*University College, London.
*Westminster Hospital, London.
London School of Medicine for Women.
Cook's School of Anatomy.
*University of Oxford.
*University of Cambridge.
*Queen's College, Birmingham.
Bristol Medical School, Bristol.
*School of Medicine, Yorkshire College, Leeds.
*School of Medicine, University College, Liverpool.
The Owens College, Manchester.
*University of Durham, School of Medicine, Newcastle-on-Tyne.
University of Edinburgh.
School of Medicine, Royal College of Surgeons, Edinburgh.
School of Medicine, Minto House, Edinburgh.
*University of Aberdeen.
University of Glasgow.
Anderson College, Glasgow.
St Mungo's College, Glasgow.
Western Medical School, Glasgow.
*School of Physic, Trinity College, Dublin.
Carmichael School of Medicine, Dublin.
Catholic University, School of Medicine, Dublin.
Royal College of Surgeons, Ireland.
Queen's College, Belfast.
Queen's College, Cork.
Queen's College, Galway.

Through error, notices were not sent either to University College, Dundee, or to the School of Medicine for Women, Edinburgh.

Answers were received from 13 of the 36 schools enumerated above, a fact which is noted by placing an asterisk before the name of the institution from which an answer has been received.

Whilst the Committee is gratified with the support they have received, they cannot but recognise the fact that many of the larger and more important educational bodies are conspicuous by their absence in the Report. The Secretary intimates that in several instances where the notices had been forwarded to the professors or teachers, these officers had not brought them under the notice of the gentlemen more immediately engaged in the direction of the practical work. As it is impossible in all cases to obtain accurate information as to the proper person to whom to address the notices, the Committee express the hope that in future the officials who receive the Society's notices will undertake to forward them to the proper quarter. Had such been done in the present instance, the Secretary has reason to know that the number of reports sent in would have been considerably greater. In view of facilitating the arrangements, the Secretary will be glad to receive any information as to the proper persons to whom to address the notices. Encouraged by the success of the present inquiry, the Committee, profiting by the experience of the past year, trust that next year they may look forward to receive the co-operation of a larger number of schools in the publication of their Report. Meanwhile, they wish to

place on record their thanks to the gentlemen who have so kindly assisted them upon the present occasion.

REPORT.

In dealing with the answers to the various questions, the Secretary has endeavoured, as far as possible, to arrange the results in tabular form. This has not always been an easy matter, hence the necessity of occasional notes in the Tables.

Prefixed to each Table is a paragraph explanatory of its arrangement, together with a summary of facts, the nature of which precludes the possibility of arranging them in tabular form.

Question 1.—Table I.

Nine reports have been sent in, in reply to Question 1, giving a total of 419 arteries examined.

The first column contains the names of the schools from which the reports have been received. Appended to each School is the name of the gentleman to whom the Society is indebted for their return. The succeeding eight columns are devoted to the enumeration of the different varieties recorded, each column being further subdivided into three for right and left sides and total respectively. When the figures in the R. and L. columns are linked together, thus (10—10), it implies that the arrangement is the same on both sides; when not so joined, it indicates that the arteries on the two sides of the same subject have differed. The last column on the right hand side of the table contains the totals of the different specimens examined in each school.

Mr C. Angus, in the Aberdeen report, cites a case in which the right renal artery gives off muscular branches to the right crus of the diaphragm. Referring to the case of three renal arteries on both sides in the same report, Mr Angus writes—"The left is supplied by three arteries coming off separately from aorta. The upper (much the larger) arose 1″ below the cœliac axis, the lower one ½″ below this point. Right supplied by three from aorta, all arising close together, middle the larger."

In the Trinity College, Dublin, report, forwarded by Professor Cunningham, in the cases recorded in columns 3, 4, and 5, the accessory arteries entered the kidney at the upper and lower borders of the organ, in column 6 the arteries enumerated entered the hilum.

Quoting from the same report, the following is interesting:—

"In regard to the relations of the artery, vein, and ureter, the varieties were arranged into six classes for convenience.

"*Class* 1. In this the arterial trunk arising from the aorta passed

outwards behind the vein, its branches entering the hilum between the vein and ureter. Of this variety, fifty-two instances were noted.

"*Class* 2. In which the trunk of the artery passing outwards behind the vein broke up into branches, which enclosed the ureter at the hilum. This condition existed in twenty-one cases.

"*Class* 3. In this the artery passed out behind the vein, but its terminal branches in entering the hilum enclosed that vessel. Of this variety, twelve instances were noted.

"*Class* 4. In which the course of the artery lay behind the vein, but its terminal branches enclosed both the vein and ureter at the hilum. Eight cases fell into this category, in five of which there was also a branch entering between the vein and ureter.

"*Class* 5. In which the artery coursed outwards altogether in front of the vein, its branches retaining the same position at the hilum. Eight cases of this variety were also noted.

"*Class* 6. In which the artery passed outwards behind the vein, but its branches entered the hilum altogether behind the ureter. Only two instances were noted."

Mr H. D. Rolleston, in the St Bartholomew's Hospital return, notes the fact that in seven subjects the arterial supply was normal on the right side, whilst on the left, two renals were present. In the subject with the three renals on the right side, there were two renals on the left, and in that with four arteries on the left, there were two on the right side.

In the report forwarded from University College, London, by Professor Thane, Mr E. W. Selby describes a case in which "the right kidney was large, and was supplied by a single artery; the left kidney was very small, crescentic in shape, and each extremity received a small vessel, the upper arising from the back of the aorta opposite the renal artery, the lower from the front of the aorta $\frac{1}{2}$ an inch above its bifurcation." In the instance recorded in this report of the occurrence of three arteries on the left side, there was but one on the right side.

Mr F. G. Parsons, F.R.C.S., in the St Thomas' Hospital report, summarizes the details as follows:—"Out of thirty bodies examined, nine displayed abnormalities in the arterial supply of the kidneys. In six subjects the arteries were abnormal on one side only; of these, three were on the right and three on the left. In the other three cases, both sides were abnormal. Mr Parsons also draws attention to the fact that in four cases in which an accessory renal artery comes from above the proper renal, the accessory trunk crosses obliquely in front of the renal artery, and enters the lower part of the organ just below the hilum; in two instances it supplies offsets to the ureter."

One of the cases noted in this report is interesting. It is described as follows:—"Movable kidney on the right, having three renal arteries, one from the aorta and one from each common iliac."

In one of the diagrams with which Mr Parsons illustrates his report, the ureter is represented as double for a considerable distance on the right side.

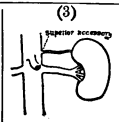
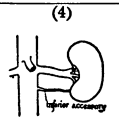
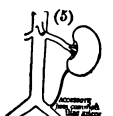
Mr W. Thelwall Thomas, F.R.C.S., notes the following in the

report from University College, Liverpool:—"Right kidney three arteries, the uppermost corresponding to the normal position, the lowest being ½ an inch from the bifurcation. The ureter *is in front*, the vena cava *behind*.

In a report received from Queen's College, Birmingham, mention is made of two cases of double renals in different subjects. In one, on the left side, the arteries arose from the aorta 10 mm. and 8·5 mm. respectively above the bifurcation. In another subject there were two renal arteries on the right side. These cases are not included in the Tables, as unfortunately there was no record sent of the number examined.

[TABLE I.

TABLE I.—*Abnormalities in the Arterial Supply of the Kidney. The Renal Arteries to be Noted in every Subject dissected, and all Deviations from the Normal Arrangement in Number and Position to be Tabulated.*

Reports.	(1) Normal.			(2) Single Artery undergoing immediate division.			(3) 			(4) 			(5) 			(6) Two Arteries not specified.			(7) Three Arteries.			(8) Four Arteries.			(9) Total number examined.
	R.	L.	Total.	R.	L.	Total.	R.	L.	Total.	R.	L.	Total.	R.	L.	Total.	R.	L.	Total.	R.	L.	Total.	R.	L.	Total.	
Cambridge University— W. C. Melsome,	10–10 7 5		32	2 dividing into 2, 1 into 3.	1 dividing into 2.	4	1	3	4	1	3	4	.	.	.	1	2	3	1	2	3	1	.	1	51
Oxford University,	2–2 . 2		6	1	1	2	2	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	10
Aberdeen University— C. Angus, M.B.,	10–10		20	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	1	2	.	.	.	22
Trinity College, Dublin— A. C. O'Sullivan, F.T.C.D. O. L. Robinson, M.R.C.S., L.R.C.P.	.	.	76	.	.	.	.	.	10	.	.	4	.	.	1	.	.	8	.	.	3	.	.	1	103
St Bartholomew's Hospital, London— H. D. Rolleston,	12–12 7 3		34	.	.	.	.	.	3	.	.	3	.	.	.	4	9	13	1	.	1	.	1	1	55
University College, London— E. W. Selby,	9–9 4 .		22	.	.	.	1–1		2	.	2	2	.	.	.	.	1	1	.	1	1	.	.	.	28
St Thomas's Hospital, London— F. G. Parsons, F.R.C.S.,	.	.	48	.	.	.	2–2 3		7	1–1		2	2	.	2	.	.	.	1	.	1	.	.	.	60
Middlesex Hospital, London— C. Gordon Brodie, F.R.C.S.,	8–8 1 4		21	2 splitting into 2.	.	2	.	.	.	.	.	.	1	.	1	1–3	1 1 accessory from inf. mesenteric.	7	. 2 branches from aorta, 1 from inf. mesenteric.	1	1	.	.	.	32
University College, Liverpool— W. Thelwall Thomas, F.R.C.S.,	.	.	53	.	.	.	.	1	1	1	1	2	.	.	.	.	.	.	2	.	2	.	.	.	58
Total,	.	.	312	.	.	8	.	.	29	.	.	17	.	.	4	.	.	32	.	.	14	.	.	3	419
Percentage,	.	.	74·4	.	.	1·9	.	.	6·9	.	.	4	.	.	9	.	.	7·6	.	.	3·3	.	.	·7	100

Question 2.—Table II.

Answers to Question 2 have been received from thirteen schools, comprising in all 447 observations.

The division A in the Table includes a record of all the arteries examined. The first column includes the total number examined in each report, the two succeeding columns being devoted to those cases in which the artery is superficial, or deep, as the case may be. Each column is further subdivided so as to allow of the grouping of the cases into left and right, the total in each case being given in larger figures. Division B includes those cases only which were examined on both sides. The figures here refer to the number of subjects examined, *not to the arteries*. This is further subdivided into columns, in which are noted the totals, the numbers of those superficial and deep on both sides, and the instances in which there is a variation in the arrangement of the artery on the different sides. Unfortunately the data forwarded are not in all cases sufficient to yield a complete return, but it has been thought well to tabulate such facts as have been stated. The last division has been devoted to "remarks." These chiefly refer to the relations of the artery to the various nerves in this region.

In the Trinity College report, Mr J. J. Long cites two cases in which the artery pierced the lower head of the muscle, and then became superficial to it, thus pursuing an intermediate course. In another case the artery pursued a very irregular course. It first passed deeper than the muscle, piercing the inferior dental nerve; it then coursed upwards, appeared above the superior head of origin of the pterygoid, whence it curved downwards and forwards, passing between the two heads of the muscle to enter the spheno-maxillary fossa.

[Table II.

TABLE II.—*The Relation of the Internal Maxillary Artery to the External Pterygoid Muscle, whether superficial to, or deeper than, the Muscle, its Position to be noted in each Body.*

Reports.	A. Includes all Arteries examined.							B. Includes only those examined on both sides.				
	Total.	Artery superficial to muscle.			Artery deeper than muscle.			Total.	Superficial.	Deep.	Different on two sides.	
		R.	L.	Total.	R.	L.	Total.					
University of Cambridge— W. C. Melsome, ...	51	17	17	34	9	7	16	.	11	3	.	In one case the artery pierced the lower origin of the external pterygoid.
University of Oxford— H. A. Munro, B.A., ...	20	3	6	9	4	7	11	.	2	2	.	In one subject the artery on the right side lay between the inferior dental nerve and the lingual nerve; on the left side, it lay in front of both nerves. In both instances the artery lay behind the external pterygoid. In another subject, the artery, which was deep, had the lingual and inferior dental nerves behind it, and the buccal nerve in front.
University of Durham, College of Medicine, Newcastle-on-Tyne— Dr Howden, ...	16	7	6	13	1	2	3	.	4	.	3	
University of Aberdeen— C. Angus, M.B., ...	34	5	5	10	12	12	24	.	5	12	.	In no case recorded is there any difference between the two sides.
Trinity College, Dublin— J. J. Long, B.A. (Dubl.), . .	93	23	24	47	25	18	43	42	.	.	.	When the artery was superficial to the muscle, the long buccal nerve, which invariably came through the interval between the heads of the external pterygoid, passed superficial to and above the artery in thirteen cases; below and deeper than the artery in thirty-four cases. When the artery was deeper than the muscle, the long buccal nerve was always above the artery. The inferior dental nerve was superficial to artery in nineteen instances. The inferior dental nerve was deeper in nineteen instances. The inferior dental nerve was perforated by artery, in five instances. Lingual nerve superficial to artery in seven instances (in which cases the inferior dental was also superficial). Lingual nerve deeper than artery in thirty-six instances.
Carry forward, . . .	**214**	.	.	**113**	.	.	**97**	.	.	.	.	

TABLE II.—*continued.*

Reports.	A. Includes all Arteries examined.							B. Includes those only examined on both sides.				Remarks.
	Total.	Artery superficial to muscle.			Artery deeper than muscle.			Total.	Superficial.	Deep.	Different on two sides.	
		R.	L.	Total.	R.	L.	Total.					
Brought forward, .	214	.	.	113	.	.	97					
St Bartholomew's Hospital, London— H. D. Rolleston, ...	38	10	5	15	11	12	23	10	2	7	1	
University College, London— H. A. Ballance, ...	36	9	4	13	15	8	23	12	3	6	3	
St Thomas's Hospital, London— F. G. Parsons, F.R.C.S., . .	30	6	8	14	9	7	16	.	5	6	4	
Middlesex Hospital, London— C. Gordon Brodie, F.R.C.S., .	30	4	5	9	11	10	21	.	3	9	3	All the subjects were males, with one exception, in which case the artery lay deeper than the muscle on both sides.
Westminster Hospital, London— Dr James Black, ...	.	.	.	.	.	.	.	.	.	.	.	The internal maxillary has been seen to pass in about an equal number of cases over and under the external pterygoid muscle. Thrice I have noticed the artery not only beneath the muscle mentioned, but also that it coursed forward *beneath* the gustatory and inferior dental nerves.
University College, Liverpool— W. Thelwall Thomas, F.R.C.S., .	60	.	.	55	.	.	5	.	.	2	.	
Yorkshire College, Leeds— W. J. Oliver, ...	32	9	9	18	7	7	14	.	8	6	1	Of those cases in which the artery passed under the muscle, it was noted that in four instances it passed in front of the branches of the 5th nerve; in one it passed behind the inferior dental nerve and lingual nerve; in three it passed over the lingual and under the inferior dental nerve.
Queen's College, Birmingham— Dr A. E. Mahood, . . .	7	.	.	6	.	.	1	.	.	.	.	In the case where the artery was deep it lay between the inferior dental and lingual nerves.
Total, ...	**447**	.	.	**243**	.	.	**200**	.	.	.	.	
Percentage, . . .	**100**	.	.	**54·3**	.	.	**44·7**	.	.	.	.	

Question 3.—Table III.

Ten replies in all were received, making a total of 438 specimens examined. The arrangement of the Table requires no explanation. Any observations by the different reporters are to be found in the column of "remarks."

Table III.—*The condition of the Tuberculum laterale of the posterior process of the Astragalus, whether detached as an os trigonum, or continuously ossified to the Astragalus; its relations to the posterior Astragalo-peroneal ligament may also be noticed.*

Reports.	Total Number of Specimens Examined.	Evidence of Separate Centre of Ossification.	Os Trigonum Separate and Distinct.	Remarks.
University of Cambridge—W. C. Melsome,	28	.	4	Two detached on same subject. The others right and left in different subjects.
University of Oxford,	14	1	.	In two cases the tuberculum laterale was of unusual size.
University of Durham, College of Medicine, Newcastle—Dr Howden,	8	.	.	
University of Aberdeen—C. Angus, M.B.,	34	.	.	In one case the posterior fasciculus of the external lateral ligament of the ankle was not connected with the tuberculum laterale.
Trinity College, Dublin—C. E. Stokes, B.A.,	108	1	3	In each case of the occurrence of an os trigonum, there was a distinct synovial joint, which communicated with the cavity of the posterior astragalo-calcaneal articulation: in each case the ossicle was connected by a small slip with the posterior fasciculus of the external lateral ligament of the ankle.
University College, London—Percy Fleming, M.D., F.R.C.S.,	50 (Adults.)	.	1	The ossicle was united to the astragalus by fibrous tissue, the union allowing of slight movement. The ossicle was connected with the posterior fasciculus of the external lateral ligament of the ankle.
	16 (Under 12 months.)	.	.	
	4 (12-24 months.)	.	.	
St Thomas's Hospital, London—F. G. Parsons, F.R.C.S.,	60	.	.	
Middlesex Hospital, London—C. Gordon Brodie, F.R.C.S.,	32	2	.	In the two cases recorded there was evidence of a suture, but the bones were firmly unfed. In one case the tuberculum laterale was large.
Queen's College, Birmingham—Dr A. E. Mahood,	46	2	3	In no case was it possible to demonstrate a synovial cavity. The posterior fasciculus of the external lateral ligament was attached to the os trigonum, some fibres being continued into the astragalus.
Yorkshire College, Leeds—M. J. Oliver,	38	.	1	The separate ossicle was firmly united to the astragalus by fibrous tissue.
Total,	438	6	12	
Percentage,	100	1·3	2·7	

Question 4.—Table IV.

From the nature of the inquiry, the returns in this case are not so numerous. Seven schools only have sent in reports, with a total of 118 cases examined.

The first four columns in the Table explain themselves. The fifth is devoted to a tabular view of the point of formation of the portal vein. This column has been subdivided into four wide spaces and three narrow spaces. The wide spaces represent the vertebræ from the 12th dorsal to the 3rd lumbar, the intervening narrow spaces, the intervertebral discs. The figures (which indicate the number of cases noted) are placed in these wide and narrow columns according as the point of formation of the portal vein corresponds to the level of a vertebra or a disc, the vertebræ in each case being numbered at the upper end of the column. When the figures are placed more to the right or left sides of the wide columns, it implies that the point of formation of the vein lay more to the lower or upper border of the vertebra respectively.

Mr W. C. Melsome, in the Cambridge return, notes the fact that in nine cases the inferior mesenteric joined the superior mesenteric about an inch below and to the right of the superior mesenteric artery and opposite the 2nd lumbar vertebra.

In the Durham report, there is no record of any valves being found, though sought for in each instance.

In the Trinity College report, the following facts are worthy of quotation:—

"With regard to the exact point at which the veins united, it was found that the *inferior mesenteric* vein entered the *splenic vein* in 19 cases between $\frac{1}{2}$ and $\frac{3}{4}$ of an inch from its termination, in 10 cases about an inch, and in 4 cases at $\frac{1}{4}$ of an inch or under, from its termination, three of these were at the angle. When the *inferior mesenteric* joined the *superior mesenteric*, it did so in 11 cases about $\frac{1}{2}$ an inch, in 8 cases about $\frac{1}{4}$ of an inch, and in 3 cases over $\frac{1}{2}$ an inch from its termination."

In all cases the portal vein was formed behind the head of the pancreas.

Professor Cunningham appends some notes on observations concerning the mode of termination of the superior gastric or coronary vein.

Forty-eight subjects were examined with this object; 22 were males, and 26 were females.

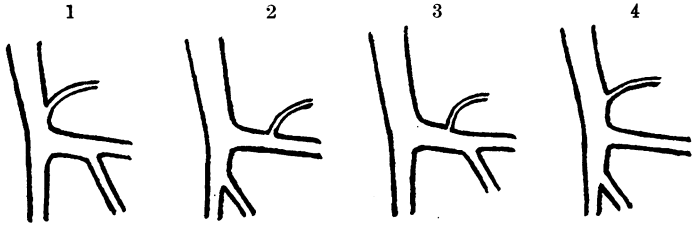
The manner of ending was as follows:—

(*a*) *In the Portal Vein.*—This occurred in 29 subjects; 15 of these were males, 14 were females.

(*b*) *In the Splenic.*—This obtained in 19 subjects; 12 females, 7 males.

In 47 of these cases the termination of the inferior mesenteric vein had also been observed, which, taken with the above, brought out the fact that there were four chief ways in which the portal vein may be formed (Diagram, page 100).

1. The most frequent method is that which is described as normal, —where the inferior mesenteric vein enters the splenic, while the



superior gastric enters the portal vein. This condition existed in 18 out of the 47 subjects—9 males and 9 females.

2. The next most frequent mode is that which may be called the reverse of the first, where the inferior mesenteric vein joins the superior, while the superior gastric enters the portal (splenic?). This occurred in 11 of the subjects—9 females and 2 males.

3. In this mode of formation, both the inferior mesenteric and superior gastric veins poured their blood into the splenic. In 8 subjects this condition existed, 4 being males and 4 females.

4. Here, neither the inferior mesenteric nor gastric veins entered the splenic, but both these, together with the splenic vein, successively joined the continuous trunk of the superior mesenteric and portal veins. This obtained in 7 subjects—3 males and 4 females.

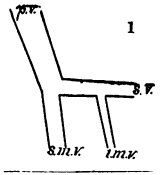
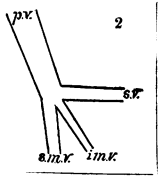
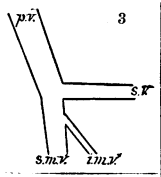
As noted in the Table, Mr Bunch, in the University College, London, reports, records the fact that out of 14 cases examined, the coronary (superior gastric) joined the portal in 11 instances—in 3 subjects the coronary vein joined the splenic.

It has been decided not to attempt to analyse the results, or compare them with previous observations. The Committee, being of opinion that this may best be left to those interested in such work, content themselves with publishing what they have reason to believe is a valuable series of reliable statistics.

In conclusion, the Secretary regrets that he has not received many suggestions for the inquiry for the ensuing year. Any communications regarding this or other business of the Committee of Collective Investigation should be addressed to him, at the Museum, Oxford.

[TABLE IV.

TABLE IV.—*The Order of Union of the three Great Trunks which form the Vena Portæ, and the levels of their junctions. The recorder is asked to endeavour, as far as possible, to observe and report the existence of valves in any of the tributaries of this vein.*

Reports.	Total Number Examined.	1 	2 	3 	Point of Formation of Portal Vein. Vertebræ. Dorsal. XII.	Lumbar. Disc.	I.	Disc.	II.	Disc.	I.	Remarks.
University of Cambridge—W. C. Melsome, . .	21	11	1	9	.	.	.	.	.	.	.	
University of Oxford—	4	4	.	.	.	.	.	.	(2.)	.	.	No valves; in two cases the coronary vein joins the portal.
University of Durham, Coll. of Medicine, Newcastle—Dr Howden, . . .	5	5	.	.	.	(1.)	(1.)(1.)	(2.)	.	.	.	
University of Aberdeen—C. Angus, M.B., . .	8	4 The inferior mesenteric joins the splenic at points varying from ½″ to 3¼″ to left of point of formation of portal vein.	.	4 Inferior mesenteric joins superior mesenteric from 1″ to 3″ below point of formation of portal vein.	(7.)	(1.)	.	.	.	.	.	No valves observed.
Trinity College, Dublin—W. Henry Thomson, M.D. (R.U.I.), M.R.C.S.,	58	33 (Males, 19; Fem., 14).	3	22 (Males, 4; Fem., 18).	.	.	(4.)	(4.)	(33.)	(5.)	(1.)	Eighteen were examined for valves; none found.
University College, London—F. Bunch, . . .	14	9	2	3	.	.	.	.	.	.	.	Coronary vein joins portal in 11 instances.
Middlesex Hospital, London—C. G. Brodie, F.R.C.S.,	8	5	2	1	Apposite head of Pancreas, ... 3 Apposite upper border of body of Pancreas . 2 Behind body of Pancreas, ... 2 Lower border of body of Pancreas, . . . 1							Coronary vein joins splenic in 3 instances.
Total, . . .	118	71	8	39	(7.)	(2.)	(1.)(1.)(4.)	(6.)	(35.)	(5.)	(1.)	
Percentage, . .	100	60·1	6·7	33	.	.	.	.	.	.	.	

NOTE TO FIGURES:—*p.v.*, portal vein; *s.v.*, splenic vein; *s.m.v.*, superior mesenteric vein; *i.m.v.*, inferior mesenteric vein.